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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,924	03/12/2004	Shunichi Matsuo	TAIYO51.002AUS	6833

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EXAMINER	
ISSAC, ROY P	

ART UNIT	PAPER NUMBER
1623	

NOTIFICATION DATE	DELIVERY MODE
08/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/799,924	Applicant(s) MATSUO ET AL.	
	Examiner Roy P. Issac	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-25 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/02/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This application claims priority under 35 U.S.C §119 (a)-(d) and 365(c) to foreign applications JAPAN 2003-82508 filed 3/25/2003 and JAPAN 2003-82509 filed 3/25/2003 and JAPAN 2003-94721 filed 3/31/2003. Certified copies of all three foreign priority documents have been received. However, no translation of any of the foreign priority documents is received.

Election/Restrictions

Applicant's election without traverse of Group III, claims 26-31 in the reply filed on 7/03/2007 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Because these inventions are independent or distinct for the reasons set forth in the restriction requirement mailed 6/05/2007 and because the response was made without pointing out any supposed errors, the requirement is deemed proper and is therefore made FINAL.

Claims 1-25 and 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim.

Therefore, claims 26-31 are examined on the merits herein.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,984,731 in view of Elion et. al. (U.S. Patent No. 5,244,945; PTO-892). Although the conflicting claims are not identical, they are not patentably distinct from each other because the '731 patent discloses a process for manufacturing cellulose acetate comprising the steps of steaming under pressure, filtration, dehydration and acetylation using corncob meal as a starting material. The instant application also claims manufactures cellulose acetate comprising the steps of steaming under pressure, filtration, dehydration and acetylation using bagasse or kenaf or reeds or rice straw as starting material. The '945 patent

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shows that bagasse is used as a source in the manufacture of cellulose acetate. (Abstract). It would have been obvious to one of ordinary skill in the art at the invention was made to use bagasse or kenaf or reeds or rice straw as starting material in place of corncob meal, for the preparation of cellulose acetate using the same reagents and same reaction steps as of the '731 patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanna et. al. (U.S. Patent No. 6,228,213; PTO-892) in view of Zhuang (U. S. Patent No. 5,371,207; PTO-892).

Hanna et. al. discloses a process for obtaining cellulose by reactive extrusion. Examples of cellulose material disclosed include rice hulls and bagasse. (Column 5, lines 8-19; Column 8, claim 22). Hanna discloses the use of a commercial single screw extruder Insta-Pro R 2000 in the manufacture. Note that this extruder is considered a pressure vessel, and extrusion is a process performed under pressure. Hanna et. al. exemplified corncob as the source of cellulose and used steam injection. (Column 6, lines 35-53). A temperature range of 80-200°C was disclosed. (Column 8, lines 32-40). After

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extrusion and extraction remaining cellulose was washed with water and dried. (Column 6, lines 48-53). The washing process is considered equivalent to filtering to obtain the solids. The cellulose obtained by Hanna et. al. is disclosed to have improved qualities such as shorter reaction times and small particle sizes. (Column 2, lines 23-42). Furthermore, it is considered well within the basic skills of one of ordinary skill in the art to select such parameters as pressure setting, reaction times, and reaction temperature. It has been held that it is within the skill in the art to select optimal parameters, such as amounts of ingredients, in a composition in order to achieve a beneficial effect. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

Hanna et. al. does not expressly disclose the acetylation of cellulose after extrusion or the specific pressure used in the extrusion process.

Zhuang et. al. discloses a method wherein cellulose acetate is produced by reacting cellulose with acetic anhydride and sulfuric acid. (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce cellulose acetate by steaming bagasse or rice straw in a pressure vessel at a temperature range of 80-200°C and a pressure of about 15-29 MPa, filtering the steamed material with a filtering device to obtain a solid and dehydrating and acetylating the solid by adding acetic anhydride and sulfuric acid to the solid. Since Zhuang discloses an improved method for acetylating cellulose and Hanna et. al. discloses a shorter process for producing smaller sized cellulose.

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Therefore, one of ordinary skill in the art would have reasonably expected that the use of extrusion method as disclosed by Hanna et. al. in combination with the acetylation method disclosed by Zhuang et. al. would have resulted in substantially similar or better effects.

Thus the claimed invention as a whole is clearly prima facie obvious over the combined teachings of the prior art.

No Claim is allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy P. Issac whose telephone number is 571-272-2674. The examiner can normally be reached on 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roy P. Issac
Patent Examiner
Art Unit 1623



S. Anna Jiang, Ph.D.
Supervisory Patent Examiner
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